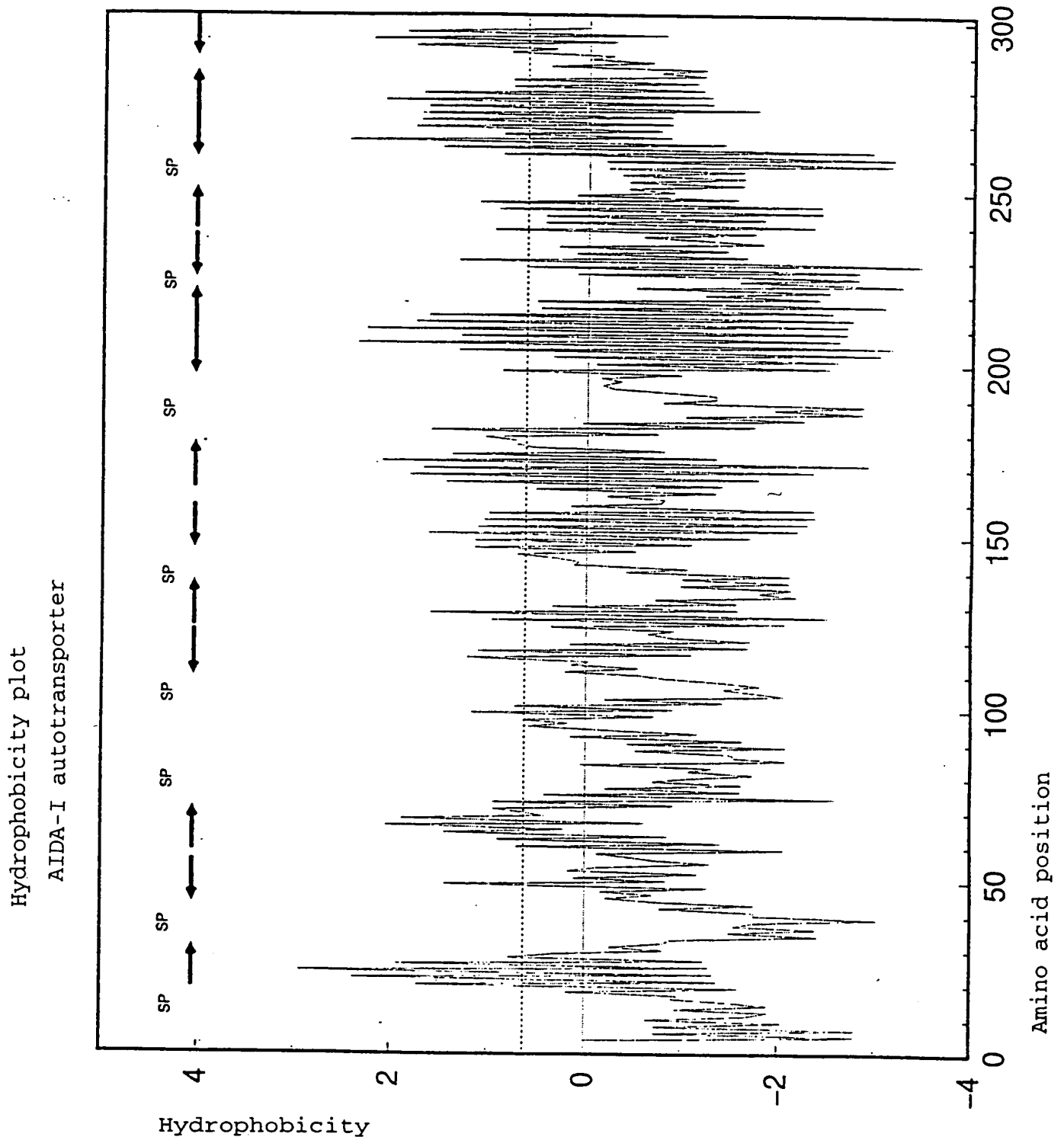


Figure 1



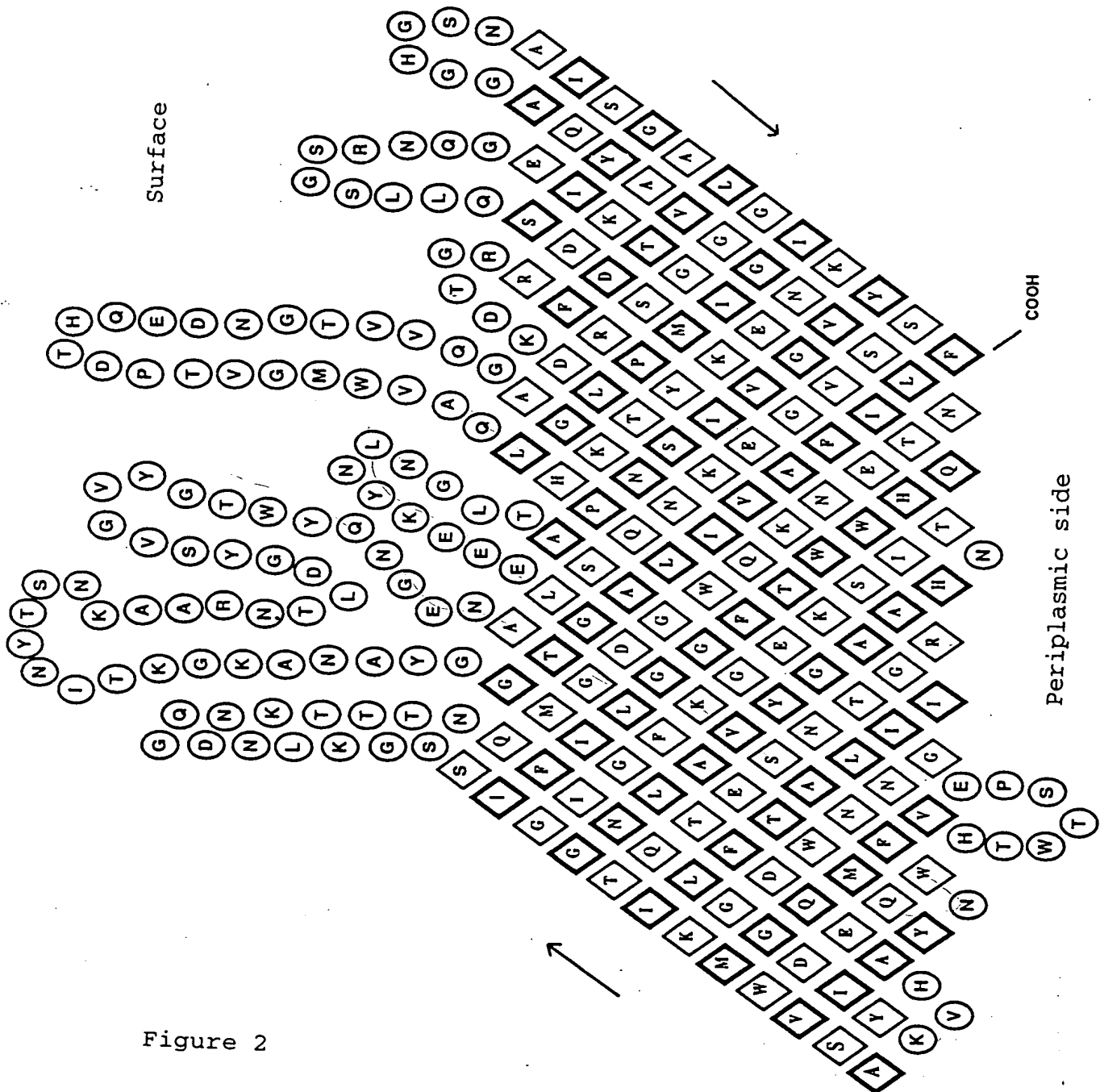


Figure 2

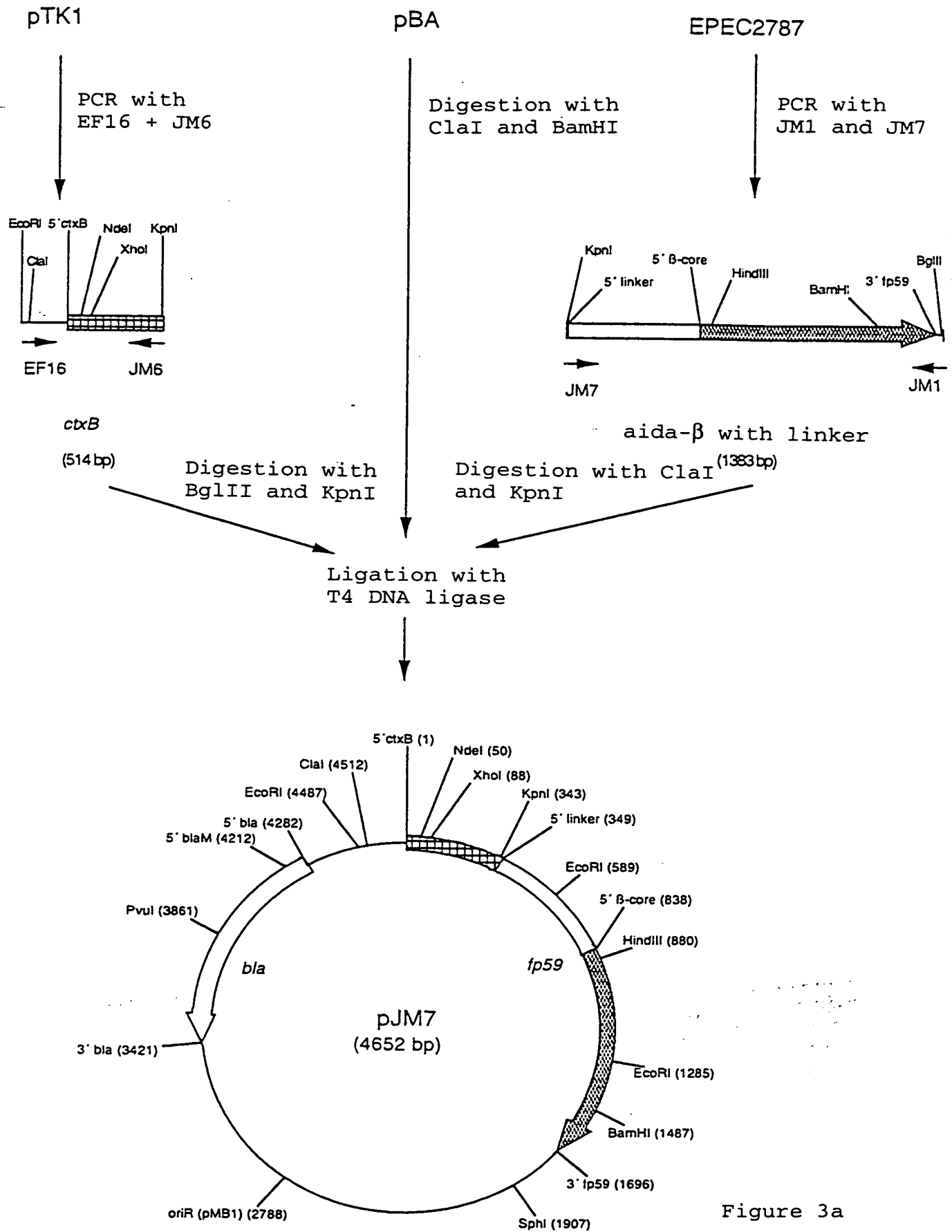


Figure 3a

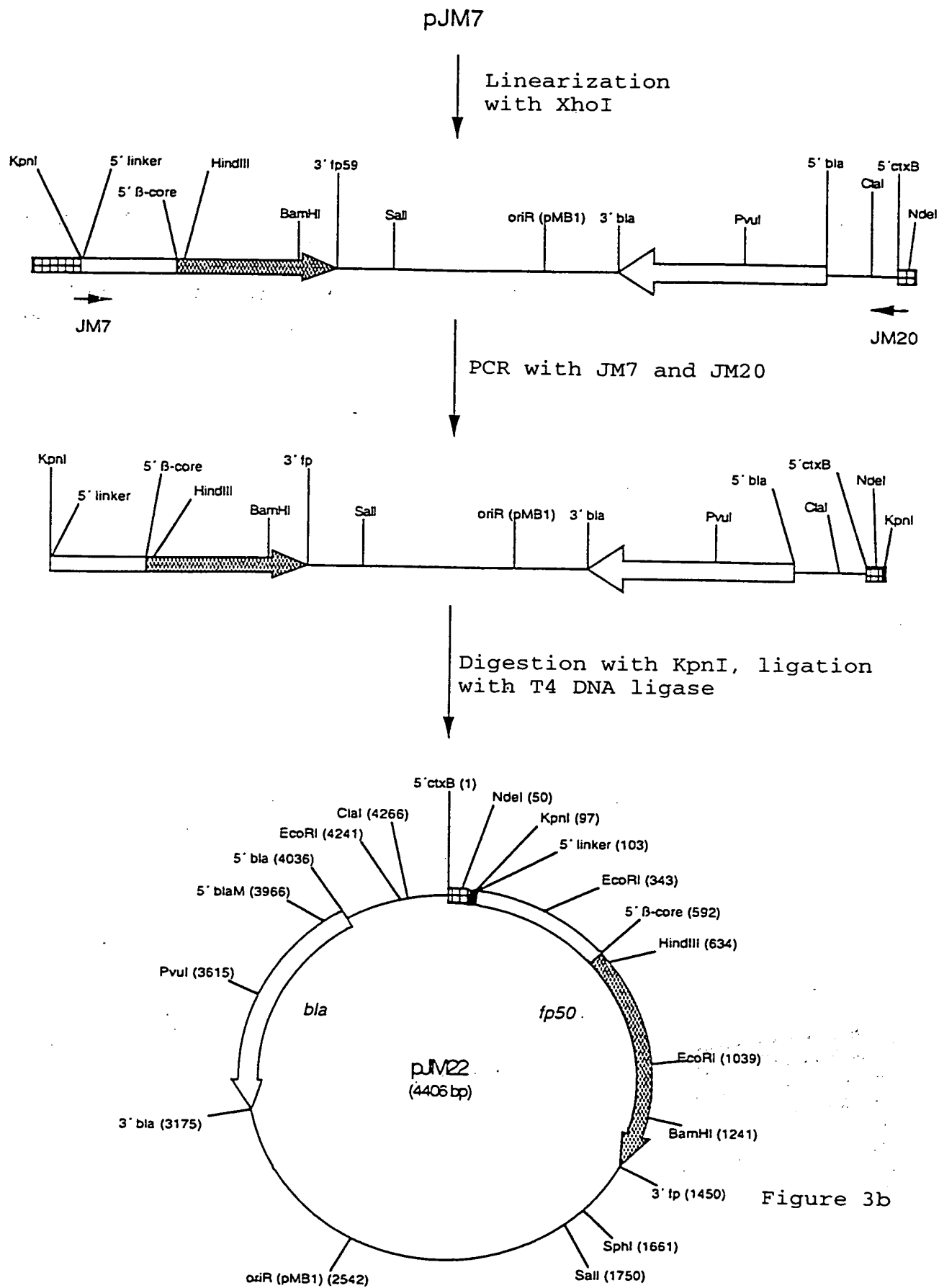


Figure 3b

Figure 4a

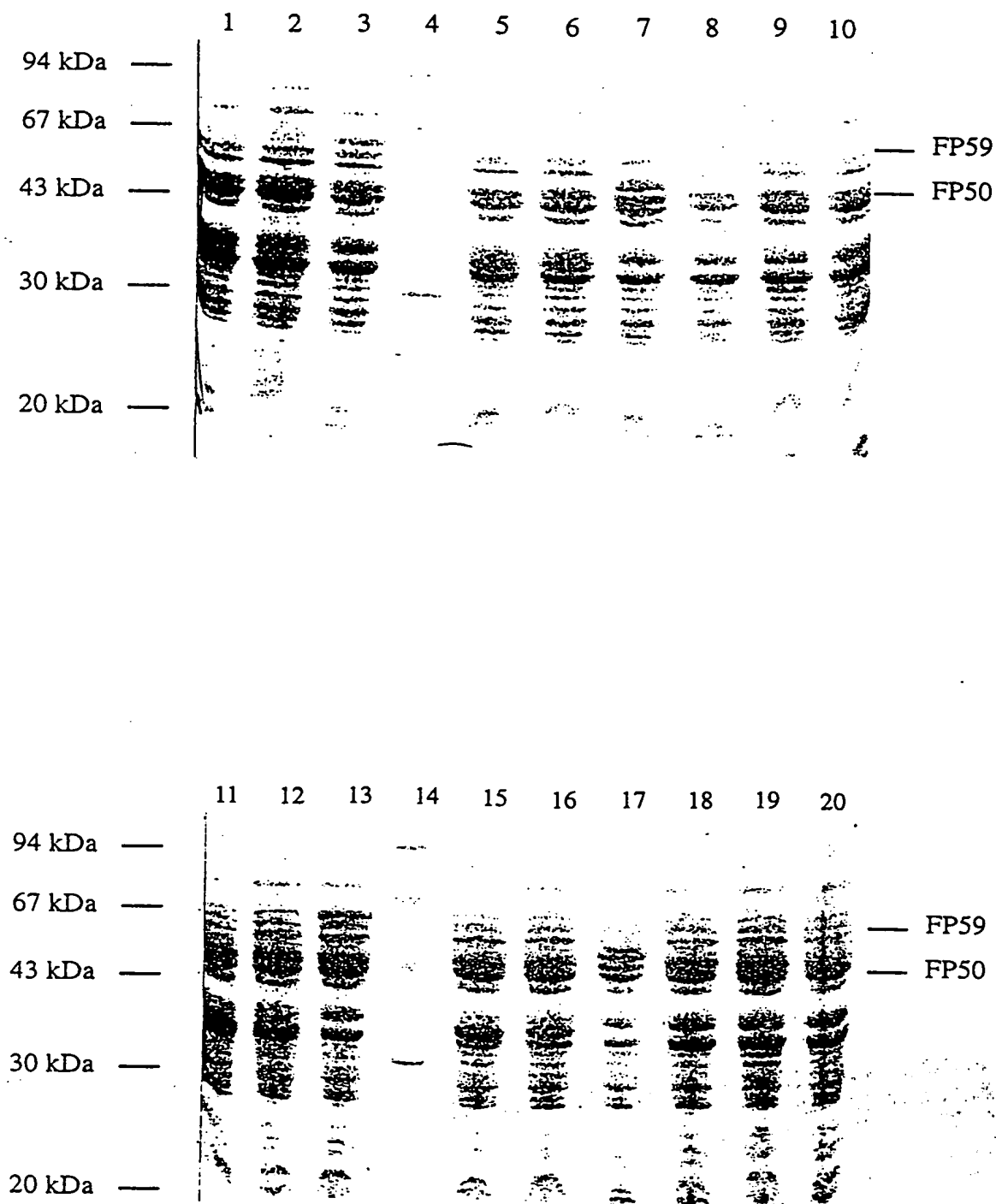


Figure 4b

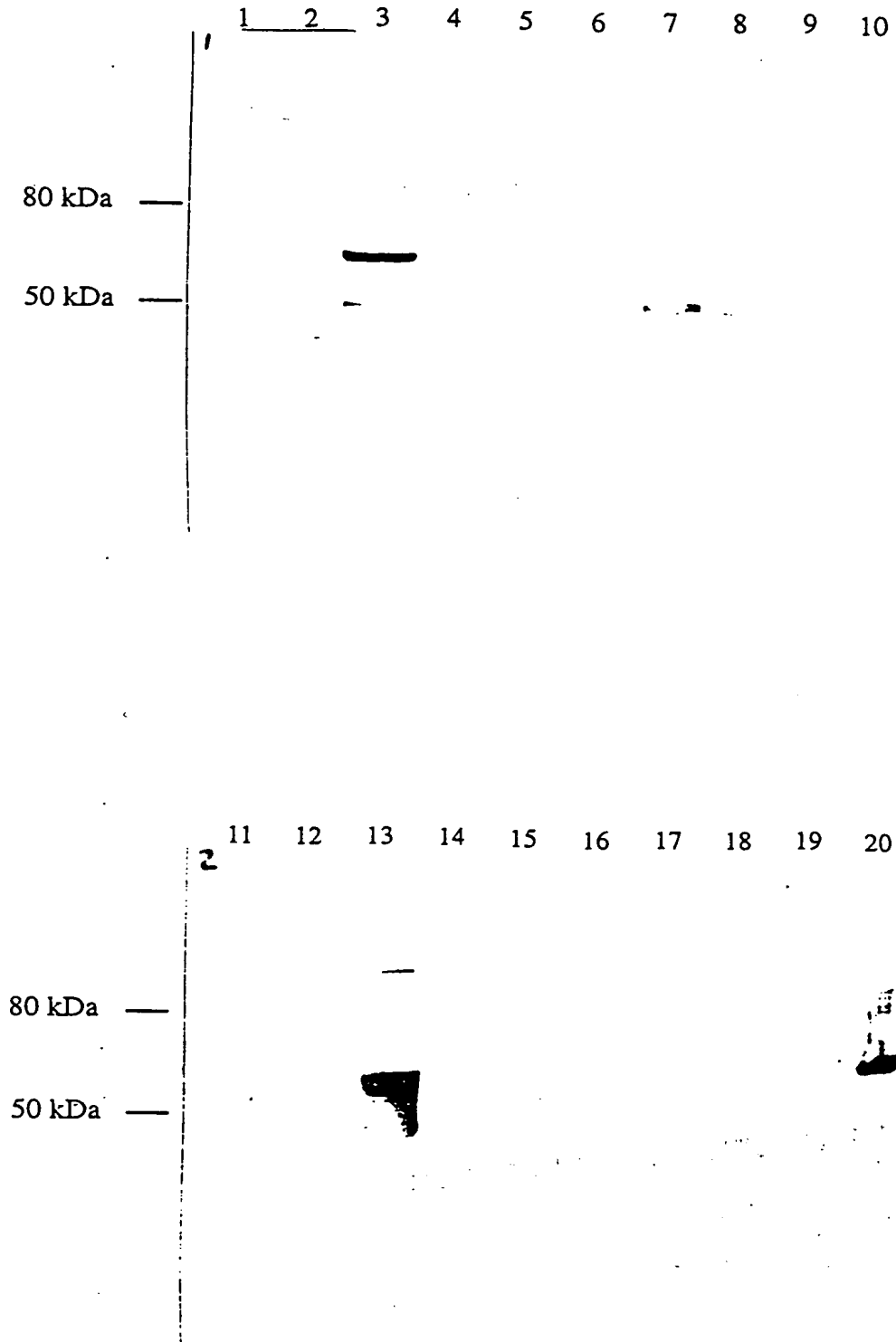


Figure 4c

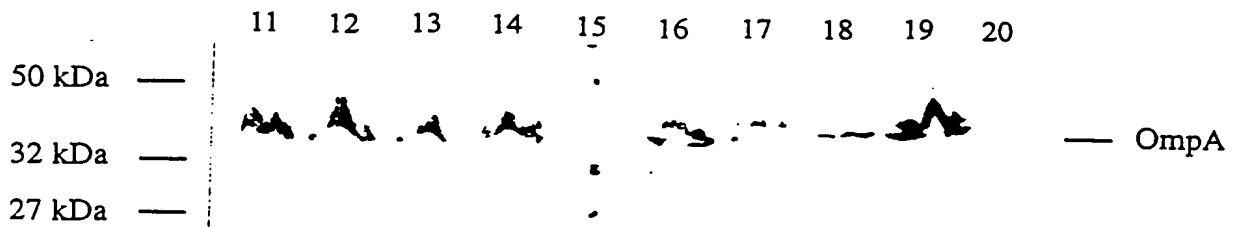
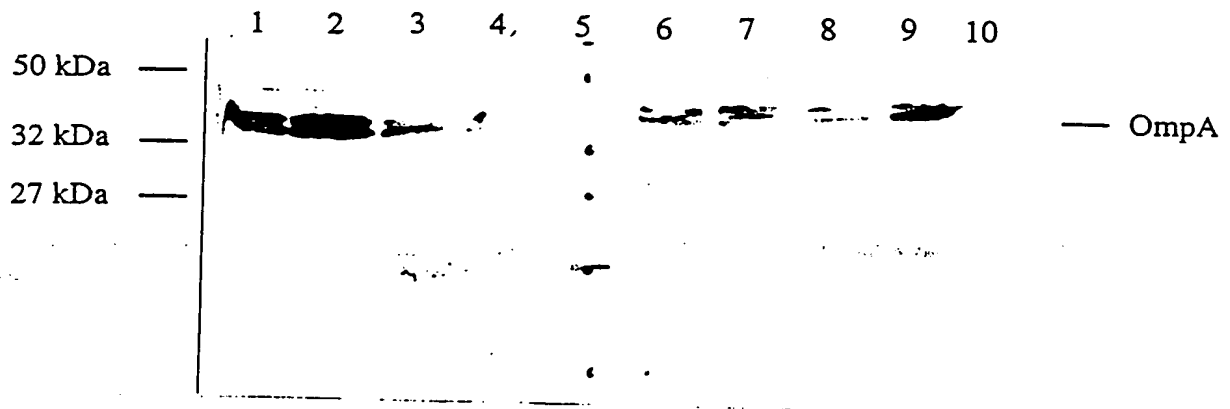
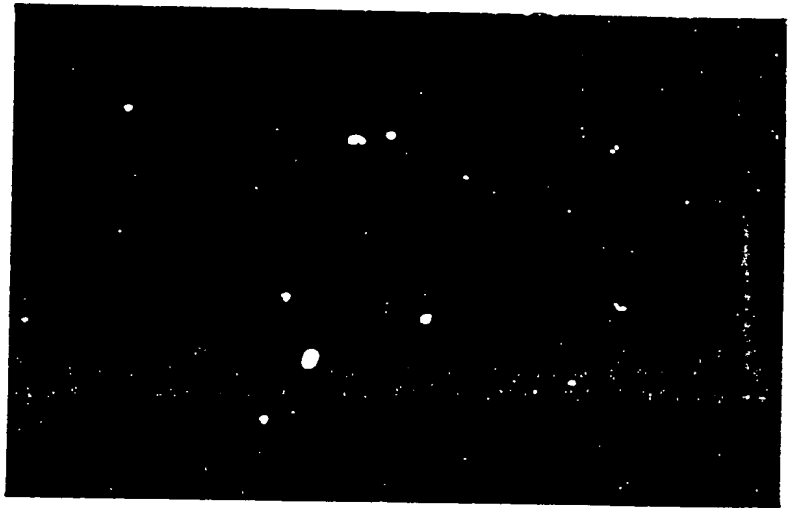
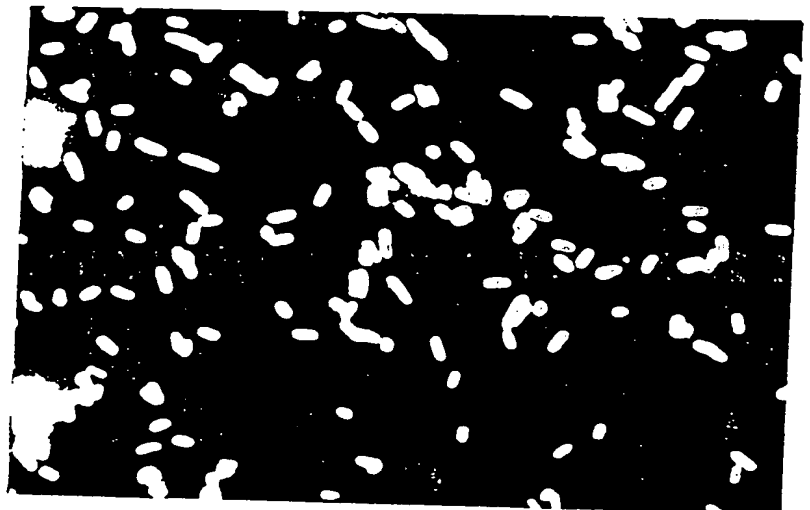


Figure 5

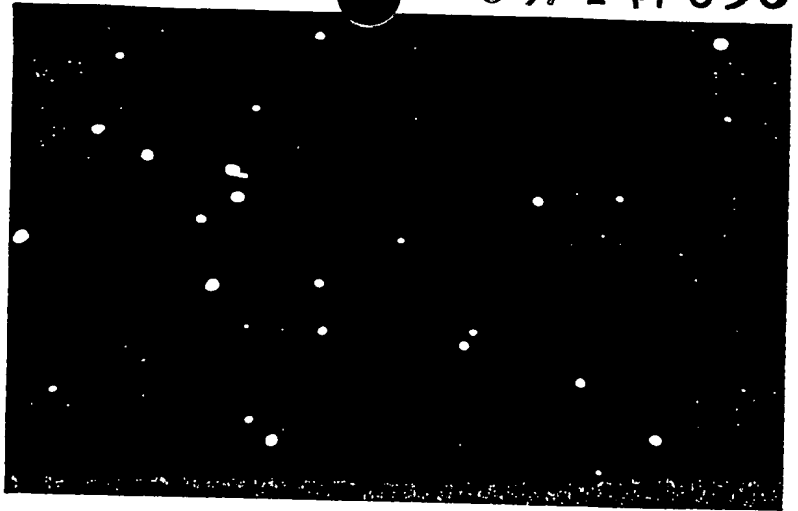
a) *E.coli* UT5600 pBAb) *E.coli* UT5600 pTK1c) *E.coli* UT5600 pJM709/147036-12598
STAT-92044600

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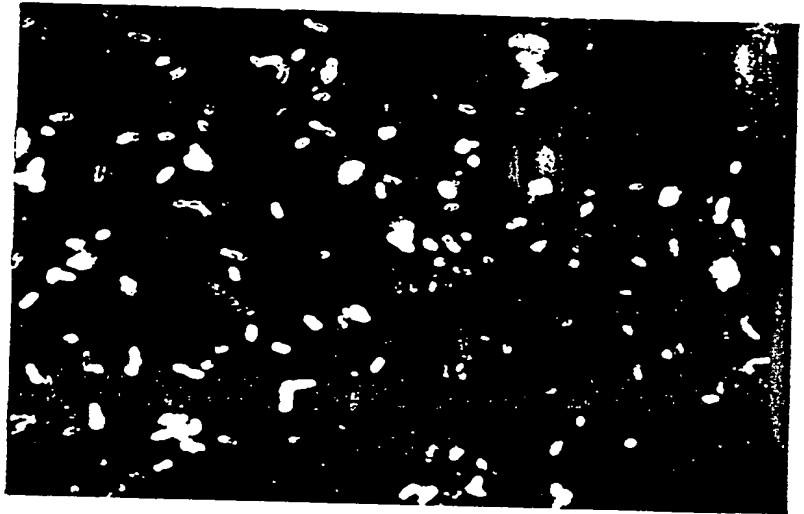
09/147036

Figure 5

d) *E.coli* UT5600 pJM22



e) *E.coli* UT5600 pTK61



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Figure 6

DNA sequences of the oligonucleotides used

Name	Use 1)	Length (bp)	Sequence (5'-3')
EF16	PCR (+)	36	TGTAAAACGACGGCCAGTATCACGAGG CCCTTTCGT
JM1	PCR (-)	27	GGAAGATCTGCCTCAGAAATGAGGGCC
JM6	PCR (-)	30	CATGGTACCAGGCGTTTTATTATTCCT AC
JM7	PCR (+)	30	CGGGGTACCCTTAATCCTACAAAAGAA AGT
JM20	PCR (+)	44	AAGGGTACCTTTGAAATACTCCGGAGTA ATATTTTTGAGGTGTTT

1)

(+) and (-) relate to the coding (+) and the DNA strand complementary thereto (-).

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Figure 7

```

GCATCCGTGTGGATGAAGATCACTGGAGGAATAAGCTCTGGTAAGCTTAATGACGGGCAA
1  -----+-----+-----+-----+-----+-----+-----+ 60
  A S V W M K I T G G I S S G K L N D G Q -

AATAAAACAACAACCAATCAGTTTATCAATCAGCTCGGGGGGATATTTATAAATTCCAT
61  -----+-----+-----+-----+-----+-----+-----+ 120
  N K T T T N Q F I N Q L G G D I Y K F H -

GCTGAACAACCTGGGTGATTTTACCTTAGGGATTATGGGAGGATACGCGAATGCAAAAGGT
121 -----+-----+-----+-----+-----+-----+-----+ 180
  A E Q L G D F T L G I M G G Y A N A K G -

AAAACGATAAATTACACGAGCAACAAAGCTGCCAGAAACACACTGGATGGTTATTCTGTCTC
181 -----+-----+-----+-----+-----+-----+-----+ 240
  K T I N Y T S N K A A R N T L D G Y S V -

GGGGTATACGGTACGTGGTATCAGAATGGGGAAAATGCAACAGGGCTCTTTGCTGAAACT
241 -----+-----+-----+-----+-----+-----+-----+ 300
  G V Y G T W Y Q N G E N A T G L F A E T -

TGGATGCAATATAACTGGTTTAAATGCATCAGTGAAAGGTGACGGACTGGAAGAAGAAAAA
301 -----+-----+-----+-----+-----+-----+-----+ 360
  W M Q Y N W F N A S V K G D G L E E E K -

TATAATCTGAATGGTTTAAACCGCTTCTGCAGGTGGGGGATATAACCTGAATGTGCACACA
361 -----+-----+-----+-----+-----+-----+-----+ 420
  Y N L N G L T A S A G G G Y N L N V H T -

TGGACATCACCTGAAGGAATAACAGGTGAATTCTGGTTACAGCCTCATTTCAGGCTGTCTC
421 -----+-----+-----+-----+-----+-----+-----+ 480
  W T S P E G I T G E F W L Q P H L Q A V -

TGGATGGGGGTTACACCGGATACACATCAGGAGGATAACGGAACGGTGGTGCAGGGAGCA
481 -----+-----+-----+-----+-----+-----+-----+ 540
  W M G V T P D T H Q E D N G T V V Q G A -

GGGAAAATAATATTTCAGACAAAAGCAGGTATTCGTGCATCCTGGAAGGTGAAAAGCACC
541 -----+-----+-----+-----+-----+-----+-----+ 600
  G K N N I Q T K A G I R A S W K V K S T -

CTGGATAAGGATACCGGGCGGAGGTTCCGTCCGTATATAGAGGCAAACCTGGATCCATAAC
601 -----+-----+-----+-----+-----+-----+-----+ 660
  L D K D T G R R F R P Y I E A N W I H N -

ACTCATGAATTTGGTGTTAAAATGAGTGATGACAGCCAGTTGTTGTCAGGTAGCCGAAAT
661 -----+-----+-----+-----+-----+-----+-----+ 720
  T H E F G V K M S D D S Q L L S G S R N -

CAGGGAGAGATAAAAGACAGGTATTGAAGGGGTGATTACTCAAAACTTGTCAGTGAATGGC
721 -----+-----+-----+-----+-----+-----+-----+ 780
  Q G E I K T G I E G V I T Q N L S V N G -

GGAGTCGCATATCAGGCAGGAGGTACGGGAGCAATGCCATCTCCGGAGCACTGGGGATA
781 -----+-----+-----+-----+-----+-----+-----+ 840
  G V A Y Q A G G H G S N A I S G A L G I -

AAATACAGCTTC
841 -----+----- 852
  K Y S F -

```

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Figure 8

CTGCGCCTGCGCGCCGACGCCGGCGGGCCATGGGCGCGTACGTTTCAGCGAGCGCCAGCAG
1 +-----+-----+-----+-----+-----+ 60
L R L R A D A G G P W A R T F S E R Q Q -
ATCAGCAACCGCCACGCCCCGCGCTACGACCAGACGGTCAGCGGGCTGGAGATCGGCCTG
61 +-----+-----+-----+-----+-----+ 120
I S N R H A R A Y D Q T V S G L E I G L -
GACCGTGGCTGGAGCGCGTCGGGCGGGCGCTGGTACGCCGGCGGCCTGCTCGGCTACACC
121 +-----+-----+-----+-----+-----+ 180
D R G W S A S G G R W Y A G G L L G Y T -
TATGCCGACCGCACCTATCCCGGCGACGGTGGCGGCAAGGTCAAGGGCCTGCACGTCCGGC
181 +-----+-----+-----+-----+-----+ 240
Y A D R T Y P G D G G G K V K G L H V G -
GGCTACGCCGCCTATGTCGGCGATGGCGGCTACTATCTCGACACCGTGTGCGGCTGGGC
241 +-----+-----+-----+-----+-----+ 300
G Y A A Y V G D G G Y Y L D T V L R L G -
CGCTACGATCAGCAATACAACATTGCCGGCACCGATGGCGGCCGCGTCAACGCCGACTAC
301 +-----+-----+-----+-----+-----+ 360
R Y D Q Q Y N I A G T D G G R V T A D Y -
CGCACAAGCGGCGCCGCATGGTCGCTCGAAGGCGGGCGCCGGTTCGAGCTGCCCAACGAC
361 +-----+-----+-----+-----+-----+ 420
R T S G A A W S L E G G R R F E L P N D -
TGGTTCGCCGAACCGCAGGCCGAGGTCATGCTGTGGCGCACGTCAGGCAAGCGCTATCGC
421 +-----+-----+-----+-----+-----+ 480
W F A E P Q A E V M L W R T S G K R Y R -
GCCAGCAATGGCCTGCGCGTCAAGGTGGACGCCAACACCGCCACGCTGGGCGCGCTGGGC
481 +-----+-----+-----+-----+-----+ 540
A S N G L R V K V D A N T A T L G R L G -
TTGCGCTTCGGCCGCGCATCGCCCTGGCCGGCGGCAACATCGTGCAGCCCTACGCCAGG
541 +-----+-----+-----+-----+-----+ 600
L R F G R R I A L A G G N I V Q P Y A R -
CTCGGCTGGACGCAGGAGTTCAAAAGCACGGGCGATGTGCGCACCAATGGCATTGGCCAT
601 +-----+-----+-----+-----+-----+ 660
L G W T Q E F K S T G D V R T N G I G H -
GCCGGCGCAGGCCGCCACGGCCGCGTGAAGTGGGCGCGGGCGTGCACGCCGCGTTGGGC
661 +-----+-----+-----+-----+-----+ 720
A G A G R H G R V E L G A G V D A A L G -
AAGGGGCACAACCTCTATGCTTCGTACGAGTACGCGGCGGGCGACCGGATCAACATTCCG
721 +-----+-----+-----+-----+-----+ 780
K G H N L Y A S Y E Y A A G D R I N I P -
TGGTCGTTCCACGCCGGCTACCGCTACAGCTTC
781 +-----+-----+-----+-----+-----+ 813
W S F H A G Y R Y S F -

Figure 9

[illegible]

Figure 10

ACCTCAATCTACACCACAGTACAGGCAGGATGGGATCATGTATTTGGCAGCGAGGGTGGGA
 1 -----+-----+-----+-----+-----+ 60
 T S I Y T T V Q A G W D H V F G S E G G -
 AATGACTTTTGTAGGTTTGTGCTGTGGCTTATGCAGGTGCAGCGATGAGCTCTGAGAAGAAA
 61 -----+-----+-----+-----+-----+ 120
 N D F L G F A V A Y A G A A M S S E K K -
 GAACAGCTAGTAAATGGTGCACAAAAGGGAGTAAATCCAGCGGTGGAATGCCTTTGAA
 121 -----+-----+-----+-----+-----+ 180
 E Q L V N G A Q K G V K S S G G N A F E -
 ATCTCGCTCTACAACCTCTATGTACAAGATGGTGTGCTTCTAGCACAGATTTCAAGTAT
 181 -----+-----+-----+-----+-----+ 240
 I S L Y N S Y V Q D G A A S S T D F K Y -
 GGTTTTATAGTGATAGCGTGGCAAAATTCAGCTTCTTGTGGAACAAGCTTACAATGTTT
 241 -----+-----+-----+-----+-----+ 300
 G F Y S D S V A K F S F L W N K L T M F -
 GGTGAGGACAGCTCTCCTAACATGCAAACTTTGGTTTCACCTTCTCTCAAGAGATTGGT
 301 -----+-----+-----+-----+-----+ 360
 G E D S S P N M Q N F G F T F S Q E I G -
 TATCGCTTCTTGCTAGGAAATCACAACGAGTGGTATATCACTCCACAAGGGCAAGTTGCT
 361 -----+-----+-----+-----+-----+ 420
 Y R F L L G N H N E W Y I T P Q G Q V A -
 TTAGGTTATTTCAACCAAAGCAATATCAAGCAAACCCTAGGAAGCCACTGGCTAAAAGGC
 421 -----+-----+-----+-----+-----+ 480
 L G Y F N Q S N I K Q T L G S H W L K G -
 GAGCAAAGTTCTATCTTCACAGTGCAGGGCGAATTGGAAGCAACTTTGGTTATAGATTT
 481 -----+-----+-----+-----+-----+ 540
 E Q S S I F T V Q G R I G S N F G Y R F -
 AATCAATTCACTGAAGACAAGGGCTGGGCTTCAGAGCTTTATTTGGGCTTGTGGTACATC
 541 -----+-----+-----+-----+-----+ 600
 N Q F T E D K G W A S E L Y L G L W Y I -
 GGCGATTATATCAGTGGTGGCAATCTTACCCTCGTGTCTGACCTAGGTTCTGTAAACACT
 601 -----+-----+-----+-----+-----+ 660
 G D Y I S G G N L T L V S D L G S V N T -
 TTAAGGACTTTGAGCTCTACTGGTAGATTTGCCTTTAACATTGGTACAAACTTCGTCGTC
 661 -----+-----+-----+-----+-----+ 720
 L R T L S S T G R F A F N I G T N F V V -
 AAAGATAATCATAGATTCTACTTTGATTTTGAAAGAAGCTTTGGAGGCAAAATCATCACA
 721 -----+-----+-----+-----+-----+ 780
 K D N H R F Y F D F E R S F G G K I I T -
 GATTACCAATTCAACATTGGCTATCGCTATAACTTTGGCGAAAACAGAAAATACGTTTCT
 781 -----+-----+-----+-----+-----+ 840
 D Y Q F N I G Y R Y N F G E N R K Y V S -
 CTTCTTGCAGGTAGTATGAAAGACACTATCAAAAAGATGATAAGAAAGAAAACAAAGAA
 841 -----+-----+-----+-----+-----+ 900
 L L A G S M K D T I K K D D K K E N K E -
 GAGACAGAAGAAATTGAG
 901 -----+----- 918
 E T E E I E -

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Figure 11

1 GAAACCACCATGTGGATTCTGACTGTTGGTGGACATAATGAGCATAATTTAGCTGATAGA 60
 E T T M W I R T V G G H N E H N L A D R -
 61 CAATTAAAAACACAGCTAACAGGATGGTTTATCAGATTGGTGGAGATATTTGAAGACA 120
 Q L K T T A N R M V Y Q I G G D I L K T -
 121 AACTTCACTGATCATGATGGCTTGCATGTGGGTATTATGGGAGCTTATGGATATCAGGAT 180
 N F T D H D G L H V G I M G A Y G Y Q D -
 181 AGCAAACTCATAATAAGTATACTAGTTATAGTTCACGAGGAAGTGTGAGCGGTTATACT 240
 S K T H N K Y T S Y S S R G T V S G Y T -
 241 GCCGGTTTGTACAGTTCTTGGTTTCAGGATGAAAAGAAGCAACAGGTCTATATATGGAT 300
 A G L Y S S -W F Q D E K E R T G L Y M D -
 301 GCTTGGTTGCAGTACAGTTGGTTTAATAATACAGTCAAAGGAGATGGGTTAACTGGTGAG 360
 A W L Q Y S W F N N T V K G D G L T G E -
 361 AAATATTCCAGCAAAGGAATAACAGGAGCTTTGGAAGCTGGCTATATCTACCCAACCATA 420
 K Y S S K G I T G A L E A G Y I Y P T I -
 421 CGCTGGACTGCTCATAATAATATTGACAACGCATTGTATCTCAATCCACAAGTCCAGATA 480
 R W T A H N N I D N A L Y L N P Q V Q I -
 481 ACTAGGCATGGGGTAAAAGCAAACGACTATATTGAACACAATGGCACTATGGTCACATCC 540
 T R H G V K A N D Y I E H N G T M V T S -
 541 TCTGGGGGCAATAATATTCAAGCAAATTTGGGATTGCGTACATCCTTAATTAGTCAGAGT 600
 S G G N N I Q A K L G L R T S L I S Q S -
 601 TGTATCGATAAGGAGACTCTTCGTAAGTTTCGAACCATTTTTGGAAGTGAATTGGAAATGG 660
 C I D K E T L R K F E P F L E V N W K W -
 661 AGCTCAAAGCAATATGGTGTAAATTATGAATGGCATGTCAAATCACCAGATAGGCAACCGT 720
 S S K Q Y G V I M N G M S N H Q I G N R -
 721 AATGTGATTGAACTCAAACTGGTGTGGGGGGGCGTCTTGCAGATAACCTAAGCATCTGG 780
 N V I E L K T G V G G R L A D N L S I W -
 781 GGAAACGTATCTCAGCAATTGGGTAATAACAGTTACAGAGACACCCAAGGTATTTGGGT 840
 G N V S Q Q L G N N S Y R D T Q G I L G -
 841 GTGAAATATACCTTC 855
 V K Y T F -

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Figure 12

CTGGGCGAGTTGCGCCTGAATCCGGACGCCGGCGCGCCTGGGGCCGCGGCTTCGCGCAA
1 -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ 60
L G E L R L N P D A G G A W G R G F A Q -

CGCCAGCAGCTGGACAACCGCGCCGGGCGGCGCTTCGACCAGAAGGTGGCCGGCTTCGAG
61 -----+-----+-----+-----+-----+-----+-----+-----+-----+ 120
R Q Q L D N R A G R R F D Q K V A G F E -

CTGGGCGCCGACCACGCGGTGGCGGTGGCCGGCGGACGCTGGCACCTGGGCGGGCTGGCC
121 -----+-----+-----+-----+-----+-----+-----+-----+-----+ 180
L G A D H A V A V A G G R W H L G G L A -

GGCTATACGCGCGGCGACCGCGGCTTCACCGGCGACGCGGCGGCCACACCGACAGCGTG
181 -----+-----+-----+-----+-----+-----+-----+-----+-----+ 240
G Y T R G D R G F T G D G G G H T D S V -

CATGTCGGGGGCTATGCCACATATATCGCCGACAGCGGTTTCTACCTGGACGCGACGCTG
241 -----+-----+-----+-----+-----+-----+-----+-----+-----+ 300
H V G G Y A T Y I A D S G F Y L D A T L -

CGCGCCAGCCGCTGGAGAATGACTTCAAGGTGGCGGGCAGCGACGGGTACGCGGTCAAG
301 -----+-----+-----+-----+-----+-----+-----+-----+-----+ 360
R A S R L E N D F K V A G S D G Y A V K -

GGCAAGTACCGCACCCATGGGGTGGGCGCCTCGCTCGAGGCGGGCCGGCGCTTTACCCAT
361 -----+-----+-----+-----+-----+-----+-----+-----+-----+ 420
G K Y R T H G V G A S L E A G R R F T H -

GCCGACGGCTGGTTCTCTCGAGCCGCGAGGCCGAGCTGGCGGTATTCCGGGCGGCGGCGGT
421 -----+-----+-----+-----+-----+-----+-----+-----+-----+ 480
A D G W F L E P Q A E L A V F R A G G G -

GCGTACCGCGCGGCCAACGGCCTGCGGGTGC GCGACGAAGGCGGCAGCTCGGTGCTGGGT
481 -----+-----+-----+-----+-----+-----+-----+-----+-----+ 540
A Y R A A N G L R V R D E G G S S V L G -

CGCCTGGGCCTGGAGGTGCGCAAGCGCATCGAACTGGCAGGCGGCAGGCAGGTGCAGCCA
541 -----+-----+-----+-----+-----+-----+-----+-----+-----+ 600
R L G L E V G K R I E L A G G R Q V Q P -

TACATCAAGGCCAGCGTGCTGCAGGAGTTTCGACGGCGCGGGTACGGTACACACCAACGGC
601 -----+-----+-----+-----+-----+-----+-----+-----+-----+ 660
Y I K A S V L Q E F D G A G T V H T N G -

ATCGCGCACCGCACCGAACTGCGCGGCACGCGCGCCGAAGTGGGCCTGGGCATGGCCGCC
661 -----+-----+-----+-----+-----+-----+-----+-----+-----+ 720
I A H R T E L R G T R A E L G L G M A A -

GCGCTGGGCGCGGCCACAGCCTGTATGCCTCGTACGAGTACTCCAAGGGCCCGAAGCTG
721 -----+-----+-----+-----+-----+-----+-----+-----+-----+ 780
A L G R G H S L Y A S Y E Y S K G P K L -

GCCATGCCGTGGACCTTCCACGCGGGCTACCGGTACAGCTGG
781 -----+-----+-----+-----+-----+-----+-----+-----+-----+ 822
A M P W T F H A G Y R Y S W -

Figure 13

CTGGGCGAGTTGCGCCTGAATCCGGACGCCGGCGGCGCTTGGGGCCGCGGCTTCGCGCAA
1 -----+-----+-----+-----+-----+ 60
L G E L R L N P D A G G A W G R G F A Q -
CGCCAGCAACTGGACAACCGCGCCGGGCGGCGCTTCGACCAGAAGGTGGCCGGCTTCGAG
61 -----+-----+-----+-----+-----+ 120
R Q Q L D N R A G R R F D Q K V A G F E -
CTGGGCGCCGACCACGCGGTGGCGGTGGCCGGCGGCGCTGGCACCTGGGCGGGCTGGCC
121 -----+-----+-----+-----+-----+ 180
L G A D H A V A V A G G R W H L G G L A -
GGCTATACGCGCGGCGACCGCGGCTTTACCGGCGACGGCGGCGGCCACACCGACAGCGTG
181 -----+-----+-----+-----+-----+ 240
G Y T R G D R G F T G D G G G H T D S V -
CATGTCGGGGGCTATGCCACCTATATCGCCAACAGCGGTTTCTACCTGGACGCGACGCTG
241 -----+-----+-----+-----+-----+ 300
H V G G Y A T Y I A N S G F Y L D A T L -
CGCGCCAGCCGCGCTCGAAAATGACTTCAAGGTGGCGGGCAGCGATGGGTACGCGGTCAAG
301 -----+-----+-----+-----+-----+ 360
R A S R L E N D F K V A G S D G Y A V K -
GGCAAGTACCGCACCCATGGGGTAGGCGTCTCGCTCGAGGCGGGCCGCGCTTCGCCCAT
361 -----+-----+-----+-----+-----+ 420
G K Y R T H G V G V S L E A G R R F A H -
GCCGACGGCTGGTTCTCGAGCCGCGAGCCGAGCTGGCGGTGTTCCGGGTGCGGCGGCGGT
421 -----+-----+-----+-----+-----+ 480
A D G W F L E P Q A E L A V F R V G G G -
GCGTACCGCGCGGCCAATGGCCTGCGGGTGC GCGACGAAGGCGGCAGCTCGGTGCTGGGT
481 -----+-----+-----+-----+-----+ 540
A Y R A A N G L R V R D E G G S S V L G -
CGCCTGGGCCTGGAGGTGCGCAAGCGCATCGAACTGGCAGGCGGCAGGCAGGTGCAGCCA
541 -----+-----+-----+-----+-----+ 600
R L G L E V G K R I E L A G G R Q V Q P -
TACATCAAGGCCAGCGTGTTCAGGAGTTCGACGGCGCGGTACGGTACGCACCAACGGC
601 -----+-----+-----+-----+-----+ 660
Y I K A S V L Q E F D G A G T V R T N G -
ATCGCGCATCGCACCGAACTGCGCGGCACGCGCGCCGAAGTGGGCCTGGGCATGGCCGCC
661 -----+-----+-----+-----+-----+ 720
I A H R T E L R G T R A E L G L G M A A -
GCGCTGGGCGCGGCCACAGCCTGTATGCCTCGTACGAGTACTCCAAGGGCCCCGAAGCTG
721 -----+-----+-----+-----+-----+ 780
A L G R G H S L Y A S Y E Y S K G P K L -
GCCATGCCGTGGACCTTCCACGCGGGCTACCGGTACAGCTGG
781 -----+-----+-----+-----+-----+ 822
A M P W T F H A G Y R Y S W -

Figure 14

AAGTTTGGTGCCTGGATAAGCCCGTTTGTCTGTAATGCAACGCAGAAGATGTGTAACAGT
 1 -----+-----+-----+-----+-----+-----+-----+-----+ 60
 K F G A W I S P F V G N A T Q K M C N S -
 ATAAGTGGTTATAAGTCTGATACAACCTGGTGGCACTATAGGTTTTGACGGCTTCGTTAGC
 61 -----+-----+-----+-----+-----+-----+-----+-----+ 120
 I S G Y K S D T T G G T I G F D G F V S -
 GATGATCTAGCACTCGGACTTGCATATACAAGAGCCGATACTGACATTAAGCTAAAAAAT
 121 -----+-----+-----+-----+-----+-----+-----+-----+ 180
 D D L A L G L A Y T R A D T D I K L K N -
 AATAAAACGGGCGATAAGAATAAGGTAGAGAGCAACATCTATTCTTTATACGGTTTATAT
 181 -----+-----+-----+-----+-----+-----+-----+-----+ 240
 N K T G D K N K V E S N I Y S L Y G L Y -
 AATGTACCTTATGAAAATCTCTTCGTTGAAGCTATAGCATCTTACTCAGATAATAAGATA
 241 -----+-----+-----+-----+-----+-----+-----+-----+ 300
 N V P Y E N L F V E A I A S Y S D N K I -
 AGAAGCAAATCAAGACGTTGTTATTGCAACGACACTAGAGACTGTCTGGTTATCAAACCTGCA
 301 -----+-----+-----+-----+-----+-----+-----+-----+ 360
 R S K S R R V I A T T L E T V G Y Q T A -
 AACGGTAAGTATAAATCCGAAAGCTATACAGGTCAGTTAATGGCTGGTTATACCTATATG
 361 -----+-----+-----+-----+-----+-----+-----+-----+ 420
 N G K Y K S E S Y T G Q L M A G Y T Y M -
 ATGCCTGAGAACATTAACCTTAACACCGCTAGCTGGGCTTAGATATTCGACTATCAAAGAT
 421 -----+-----+-----+-----+-----+-----+-----+-----+ 480
 M P E N I N L T P L A G L R Y S T I K D -
 AAGGGCTATAAGGAAACCGGTACTACTTACCAAATCTTACCGTTAAAGGCAAGAACTAT
 481 -----+-----+-----+-----+-----+-----+-----+-----+ 540
 K G Y K E T G T T Y Q N L T V K G K N Y -
 AATACTTTTCGACGGTTTACTCGGTGCTAAAGTATCAAGTAATATCAATGTCAATGAAATA
 541 -----+-----+-----+-----+-----+-----+-----+-----+ 600
 N T F D G L L G A K V S S N I N V N E I -
 GTGCTAACACCTGAGCTTTACGCAATGGTCGATTATGCATTCAAGAATAAAGTTTCGGCG
 601 -----+-----+-----+-----+-----+-----+-----+-----+ 660
 V L T P E L Y A M V D Y A F K N K V S A -
 ATTGATGCAAGGTTACAAGGTATGACTGCTCCTCTTCCAACCAACAGCTTTAAGCAAAGC
 661 -----+-----+-----+-----+-----+-----+-----+-----+ 720
 I D A R L Q G M T A P L P T N S F K Q S -
 AAAACAAGTTTTGATGTCTGGTGTCTGGTGTACTGCTAAGCATAAAATGATGGAATACAGG
 721 -----+-----+-----+-----+-----+-----+-----+-----+ 780
 K T S F D V G V G V T A K H K M M E Y R -
 ATTAACCTACGATACCAATATCGGAAGTAAGTATTTTCGCTCAGCAAGGTAGTGTAAGTT
 781 -----+-----+-----+-----+-----+-----+-----+-----+ 840
 I N Y D T N I G S K Y F A Q Q G S V K V -
 CGTGTTAATTTT
 841 -----+-----+-----+-----+-----+-----+-----+-----+ 852
 R V N F -

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Figure 15

1 TCTTATGGTGTATGGGCTAAACCTTTCTATAACATTGCAGAACAAGACAAAAAAGGTGGT 60
 S Y G V W A K P F Y N I A E Q D K K G G -
 61 ATAGCTGGTTATAAAGCAAAACTACTGGGGTTGTAGTTGGTTTAGATACTCTCGCTAGC 120
 I A G Y K A K T T G V V V G L D T L A S -
 121 GATAACCTAATGATTGGGGCAGCTATTGGGATCACTAAAACTGATATAAAACACCAAGAT 180
 D N L M I G A A I G I T K T D I K H Q D -
 181 TATAAGAAAGGTGATAAACTGATATTAATGGTTTATCATTCTCTCTATATGGTTCCCAA 240
 Y K K G D K T D I N G L S F S L Y G S Q -
 241 CAGCTTGTTAAGAATTTCTTTGCTCAAGGTAATTCAATCTTTACCTTAAACAAAGTCAAA 300
 Q L V K N F F A Q G N S I F T L N K V K -
 301 AGTAAAGTCAGCGTTACTTCTTCGAGTCTAATGGTAAGATGAGCAAGCAAATTGCTGCT 360
 S K S Q R Y F F E S N G K M S K Q I A A -
 361 GGTAATTACGATAACATGACATTTGGTGGTAATTTAATATTTGGTTATGATTATAATGCA 420
 G N Y D N M T F G G N L I F G Y D Y N A -
 421 ATGCCAAATGTATTAGTAACTCCAATGGCAGGACTTAGCTACTTAAATCTTCTAATGAA 480
 M P N V L V T P M A G L S Y L K S S N E -
 481 AATTATAAAGAAACCGGTACAACAGTTGCAAATAAGCGCATTAAATAGCAAATTTAGTGAT 540
 N Y K E T G T T V A N K R I N S K F S D -
 541 AGAGTCGATTTAATAGTAGGGGCTAAAGTAGCTGGTAGTACTGTGAATATAACTGATATT 600
 R V D L I V G A K V A G S T V N I T D I -
 601 GTGATATATCCGGAATTCATTCTTTTGTGGTGCACAAAGTAAATGGTAAATTATCTAAC 660
 V I Y P E I H S F V V H K V N G K L S N -
 661 TCTCAGTCTATGTTAGATGGACAACTGCTCCATTTATCAGTCAACCTGATAGAAGTGGT 720
 S Q S M L D G Q T A P F I S Q P D R T A -
 721 AAAACGTCTTATAATATAGGCTTAAGTGCAAACATAAAATCTGATGCTAAGATGGAGTAT 780
 K T S Y N I G L S A N I K S D A K M E Y -
 781 GGTATCGGTTATGATTTTAATTCTGCAAGTAAATATACTGCACATCAAGGTACTTTAAAA 840
 G I G Y D F N S A S K Y T A H Q G T L K -
 841 GTACGTGTAAACTTC 855
 V R V N F -

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Figure 16

GCTTACGGTATATGGGCAAAACCTTTCTATACTGATGCACATCAAAGTAAGAAAGGTGGT
 1 -----+-----+-----+-----+-----+ 60
 A Y G I W A K P F Y T D A H Q S K K G G -
 TTAGCTGGTTATAAAGCTAAAACCACCGGTGTCGTAATCGGTTTAGATACGCTAGCTAAC
 61 -----+-----+-----+-----+-----+ 120
 L A G Y K A K T T G V V I G L D T L A N -
 GATAATTTAATGATCGGTGCTGCTATCGGTATCACTAAAACCTGATATAAAACATCAAGAT
 121 -----+-----+-----+-----+-----+ 180
 D N L M I G A A I G I T K T D I K H Q D -
 TATAAGAAAGGTGATAAAACCGACGTTAACGGTTTCTCATTCTCTCTATATGGTGCCAG
 181 -----+-----+-----+-----+-----+ 240
 Y K K G D K T D V N G F S F S L Y G A Q -
 CAGCTTGTTAAGAACTTCTTTGCTCAAGGTAGTGCAATATTTAGCTTAAACCAAGTGAAG
 241 -----+-----+-----+-----+-----+ 300
 Q L V K N F F A Q G S A I F S L N Q V K -
 AACAAAAGTCAGCGTTACTTCTTCGATGCTAACGGTAATATGAGCAAGCAAATTGCTGCC
 301 -----+-----+-----+-----+-----+ 360
 N K S Q R Y F F D A N G N M S K Q I A A -
 GGTCATTACGATAACATGACATTTGGTGGTAACTTAACAGTCGGTTATGATTACAATGCA
 361 -----+-----+-----+-----+-----+ 420
 G H Y D N M T F G G N L T V G Y D Y N A -
 ATGCAAGGTGTGTTAGTAACTCCAATGGCAGGACTTAGCTACTTAAAGTCTTCTGACGAA
 421 -----+-----+-----+-----+-----+ 480
 M Q G V L V T P M A G L S Y L K S S D E -
 AACTACAAAGAAACCGGTACAACAGTTGCAACAAGCAAGTTAACAGCAAATTTAGCGAT
 481 -----+-----+-----+-----+-----+ 540
 N Y K E T G T T V A N K Q V N S K F S D -
 AGAACCGATTTAATAGTAGGTGCTAAAGTAGCCGGCAGTACTATGAACATACTGATCTT
 541 -----+-----+-----+-----+-----+ 600
 R T D L I V G A K V A G S T M N I T D L -
 GCGGTATATCCAGAAGTTCACGCTTTTGTGGTTACAAAAGTAACCGGTAGATTATCTAAA
 601 -----+-----+-----+-----+-----+ 660
 A V Y P E V H A F V V H K V T G R L S K -
 ACTCAGTCTGTATTAGACGGACAAGTTACTCCGTGTATCAACCAGCCTGACAGAACCACT
 661 -----+-----+-----+-----+-----+ 720
 T Q S V L D G Q V T P C I N Q P D R T T -
 AAAACATCTTATAATTTAGGTTTAAAGTGAAGCATAAGATCTGATGCTAAGATGGAGTAC
 721 -----+-----+-----+-----+-----+ 780
 K T S Y N L G L S A S I R S D A K M E Y -
 GGAATCGGTTACGATGCTCAGATTTCAAGTAAATATACTGCACATCAAGGTACTCTAAAA
 781 -----+-----+-----+-----+-----+ 840
 G I G Y D A Q I S S K Y T A H Q G T L K -
 GTCCGTGTAAACTTC
 841 -----+-----+-----+-----+-----+ 855
 V R V N F -

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Figure 17

TCTTATGGTGTATGGGCTAAACCTTTCTATAACATCGCAGAACAAGATAAAAAAGGTGGT
 1 S Y G V W A K P F Y N I A E Q D K K G G 60
 CTAGCTGGTTATAAAGCAAAACTGCTGGTGTGTAGTTGGTTTAGATACTCTCGCTAAT
 61 L A G Y K A K T A G V V V G L D T L A N 120
 GATAACCTAATGATTGGTGCAGCTATTGGTATCACTAAACTGACATAAAACACCAAGAT
 121 D N L M I G A A I G I T K T D I K H Q D 180
 TATAAAAAAGGTGATAAACTGATATTAAGGGTTTATCCTTCTCTCTATATGGTGCCAG
 181 Y K K G D K T D I K G L S F S L Y G A Q 240
 CAGCTTGTTAAGAATTTCTTTGCTCAAGGTAGTGCAATATTTACCTTAAACAAAGTCAAA
 241 Q L V K N F F A Q G S A I F T L N K V K 300
 AGTAAAGTCAGCGTTACTTCTTCGATGCTAATGGTAAGATGAACAAGCAAATTGCTGCC
 301 S K S Q R Y F F D A N G K M N K Q I A A 360
 GGTAATTATGATAACATAACATTCGGTGGTAATTTAATGTTTGGTTATGATTATAATGCA
 361 G N Y D N I T F G G N L M F G Y D Y N A 420
 CTGCAAGGTGTATTAGTGACTCCAATGGCAGGGCTTAGCTACTTAAATCTTCTAATGAA
 421 L Q G V L V T P M A G L S Y L K S S N E 480
 AACTATAAAGAACTGGTACTACAGTTGCAAATAAGCGCATTACAGCAAATTTAGTGAT
 481 N Y K E T G T T V A N K R I H S K F S D 540
 AGAATCGATTTAATAGTAGGTGCTAAAGTAACTGGTAGTGCTATGAATATAAATGATATT
 541 R I D L I V G A K V T G S A M N I N D I 600
 GTGATATATCCAGAAATTCATTCTTTGTAGTGCACAAAGTAAATGGTAAGCTATCTAAG
 601 V I Y P E I H S F V V H K V N G K L S K 660
 GCTCAGTCTATGTTAGATGGACAACTGCTCCATTTATCAGTCAGCCTGATAGAAGTCTGCT
 661 A Q S M L D G Q T A P F I S Q P D R T A 720
 AAAACATCTTATAATATAGGCTTAAGTGCAAATATAAGATCTGATGCTAAGATGGAGTAT
 721 K T S Y N I G L S A N I R S D A K M E Y 780
 GGTATCGGTTATGATTTTAATGCTGCAAGTAAATATACTGCACATCAAGGTACTTTAAAA
 781 G I G Y D F N A A S K Y T A H Q G T L K 840
 GTACGTATAAATTC
 841 V R I N F 855

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Figure 18

1 CAGGGGGATGCCCGGTGTCTGGGCACGCATAATGAATGGTACCGGTTCCGGCAGATGGTGAC 60
 Q G D A G V W A R I M N G T G S A D G D -
 61 TACAGCGATAACTACACTCACGTTTCAGATTGGTGTGACAGAAAGCATGAGCTGGACGGT 120
 Y S D N Y T H V Q I G V D R K H E L D G -
 121 GTGGATTATTACGGGGGCATTGCTGACCTATACGGACAGCAATGCAAGCAGCCACGCA 180
 V D L F T G A L L T Y T D S N A S S H A -
 181 TTCAGTGGAAAAACAAATCCGTGGGTGGCGGTCTGTATGCCTCTGCACTCTTTAATTCC 240
 F S G K N K S V G G G L Y A S A L F N S -
 241 GGAGCTTATTTGACCTGATTGGTAAATATCTCCATCATGATAATCAGCACACGGCGAAT 300
 G A Y F D L I G K Y L H H D N Q H T A N -
 301 TTTGCCTCACTGGGAACAAAAGACTACAGCTCTCATTCCTGGTATGCCGGTGTCTGAAGTT 360
 F A S L G T K D Y S S H S W Y A G A E V -
 361 GGTTATCGTTACCACCTGACGAAAGAGTCTCGGGTGGAGCCACAGATAGAGCTGGTTTAC 420
 G Y R Y H L T K E S W V E P Q I E L V Y -
 421 GGTTCTGTATCAGGAAAAGCTTTTAGCTGGGAAGCCCGGGGAATGGCTCTGAGCATGAAA 480
 G S V S G K A F S W E A R G M A L S M K -
 481 GACAAGGATTATAACCCACTGATTGGCCGTACTGGTGTGACGTGGGAAGAGCCTTCTCC 540
 D K D Y N P L I G R T G V D V G R A F S -
 541 GGAGACGACTGGAAAATCACAGCTCGAGCCGGGCTGGGTTATCAGTTCGACCTGCTGGCG 600
 G D D W K I T A R A G L G Y Q F D L L A -
 601 AACGGAGAAACGGTTCTGCAGGATGCTTCCGGAGAGAAACGTTTCGAAGGTGAAAAAGAT 660
 N G E T V L Q D A S G E K R F E G E K D -
 661 AGCAGGATGCTGATGACGGTAGGGATGAATGCGGAAATTAAGGATAATATGCGTTTGGGA 720
 S R M L M T V G M N A E I K D N M R L G -
 721 CTGGAGCTGGAGAAATCAGCGTTCGGGAAATATAATGTGGATAATGCGATAAACGCCAAC 780
 L E L E K S A F G K Y N V D N A I N A N -
 781 TTCCGTTATGTTTTTC 795
 F R Y V F -

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Figure 19

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1  ACCCGTCAACTGTCCGGCCAGATCCACGCGGATATGGCGTCCGCCCAGATTAACGAAAGC 60
   T R Q L S G Q I H A D M A S A Q I N E S -
61  CGTTATCTGCGCGATACCGCCACCGAGCGGTTGCGCCAGGCCGATGGCCGCCGCACCGCT 120
   R Y L R D T A T E R L R Q A D G R R T A -
121 TCCGATATCAAAGCGGATGATAATGGCGCCTGGGCGAAATTGCTGGGCAACTGGGGGCAT 180
   S D I K A D D N G A W A K L L G N W G H -
181 GCTTCCGGCAACGACAACGCTACCGGTTACCAGACATCCACCTATGGCGTGCTGTTGGGT 240
   A S G N D N A T G Y Q T S T Y G V L L G -
241 CTGGACAGCGAACTGTTTGACGACGGCCGGCTGGGCGTGATGACCGGGTATACCCGCACG 300
   L D S E L F D D G R L G V M T G Y T R T -
301 TCGCTGGTAGGCGGTCTACAGTCAGTAGTCCACAGCGACACTACACATCTGGGGCTGTAC 360
   S L V G G L Q S V V H S D T T H L G L Y -
361 GGCGACAAACGCTTCGGCGCGTTGGCGCTGCCAGCGGGCGGCACCTATACCTGGCATCGC 420
   G D K R F G A L A L P A G G T Y T W H R -
421 ATCGACACGTCGCGCTCGGTAAACTACGGCGCGCAGGCGGATCGCGAAAAGGCCCGCTAT 480
   I D T S R S V N Y G A Q A D R E K A R Y -
481 AACGCGCGCACCGGTCAGCTGTTTATCGAAAGCGGCTACGATTGGAGCAACGACGTGGTC 540
   N A R T G Q L F I E S G Y D W S N D V V -
541 AATCTTGAGCCGTTCCGCCAACCTGGCGTACACCCACTATCGCAACGAGGGGATCAACGAG 600
   N L E P F A N L A Y T H Y R N E G I N E -
601 CAAGGCGGGGCGGCGGCGCTGCGCGGCGATAAGCAAAGTCAGTCCGCCACCGCTTCGACG 660
   Q G G A A A L R G D K Q S Q S A T A S T -
661 CTGGGCCTGCGCGCCGATACGCAATGGCAGACCGACAGCGTGGCGATCGCCCTGCCGGGC 720
   L G L R A D T Q W Q T D S V A I A L P G -
721 GAGCTGGGTTGGCAACATCAGTACGGCAAGCTGGAGCGTAAACACAGCTGATGTTCAAA 780
   E L G W Q H Q Y G K L E R K T Q L M F K -
781 CGCAGCGATGTGCGGTTTCGACGTGAACAGCGTCCCTGTTCTCGCGATGGGGCCATTCTG 840
   R S D V A F D V N S V P V S R D G A I L -
841 AAAGCGGGCGTCGATGTATCGATTAACAAAAACGTCGTCCTGTCCCTGGGTACGGCGGG 900
   K A G V D V S I N K N V V L S L G Y G G -
901 CAGCTGTCGTCCAACCACCAGGACAACAGCGTCAACGCCGGCCTGACCTGGCGGTTTC 957
   Q L S S N H Q D N S V N A G L T W R F

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Figure 20

ACCCGTCAACTGTCCGGCCAGATCCACGCGGATATGGCTTCCGCCCAGATCAACGAAAGC
 1 -----+-----+-----+-----+-----+ 60
 T R Q L S G Q I H A D M A S A Q I N E S -
 CGTTACCTGCGCGATACCGCCACCGAGCGCTTGCGCCAGGCGGAAGGCCGCGCACCCT
 61 -----+-----+-----+-----+-----+ 120
 R Y L R D T A T E R L R Q A E G R R T A -
 ACCGACATTAAAGCGGATGACAACGGCGCCTGGGCGAAACTGCTGGGTAGCTGGGGGCAT
 121 -----+-----+-----+-----+-----+ 180
 T D I K A D D N G A W A K L L G S W G H -
 GCTTCCGGCAACGACAACGCCACCGTTACCAGACCTCCACCTATGGCGTGCTGTAGGT
 181 -----+-----+-----+-----+-----+ 240
 A S G N D N A T G Y Q T S T Y G V L L G -
 CTGGACAGCGAACTGTTTGGCGACGGCCGGCTTGGCATGATGACCGGGTATACCCGCACT
 241 -----+-----+-----+-----+-----+ 300
 L D S E L F G D G R L G M M T G Y T R T -
 TCGCTGGATGGAGGTTATCAGTCAGATGCTCACAGCGACAACCTACCATCTGGGGCTGTAC
 301 -----+-----+-----+-----+-----+ 360
 S L D G G Y Q S D A H S D N Y H L G L Y -
 GGCGACAAACGCTTCGGCGCGTTGGCGCTGCGAGCGGGCGGCACCTATACCTGGCATCGC
 361 -----+-----+-----+-----+-----+ 420
 G D K R F G A L A L R A G G T Y T W H R -
 ATCGACACCTCGCGTTCGGTGAACCTACGGCGCGCAGTCGGATCGCGAGAAGGCCAAGTAT
 421 -----+-----+-----+-----+-----+ 480
 I D T S R S V N Y G A Q S D R E K A K Y -
 AACGCGCGCACCGGTCAGCTGTTTCATCGAAAGCGGCTACGATTGGACGAGCGATGCGGTC
 481 -----+-----+-----+-----+-----+ 540
 N A R T G Q L F I E S G Y D W T S D A V -
 AACCTTGAGCCGTTCCGCCAACCTGGCGTATACCCATTACCGTAACGAGGAGATCAACGAG
 541 -----+-----+-----+-----+-----+ 600
 N L E P F A N L A Y T H Y R N E E I N E -
 CAAGGCGGGGCAGCGCGCTGCGCGGCGACAAACAAAGTCAGTCCGCCACCGCCTCGACG
 601 -----+-----+-----+-----+-----+ 660
 Q G G A A A L R G D K Q S Q S A T A S T -
 TTGGGTCTGCGCGCCGACACCGAGTGGCAAACCGACAGCGTGGCGATCGCGCTGCGCGGC
 661 -----+-----+-----+-----+-----+ 720
 L G L R A D T E W Q T D S V A I A L R G -
 GAGCTGGGTGGCAGCATCAGTACGGCAAGCTGGAGCGTAAAACGCAGCTGATGTTCAAA
 721 -----+-----+-----+-----+-----+ 780
 E L G W Q H Q Y G K L E R K T Q L M F K -
 CGCACTGATGCGGCGTTTCGACGTGAACAGCGTGCCTGTTTCTCGCGATGGCGCGATTCTG
 781 -----+-----+-----+-----+-----+ 840
 R T D A A F D V N S V P V S R D G A I L -
 AAAGCGGGCGTCGATGTATCGATTAACAAAAACGCCGTCCTGTCCCTTGGCTACGGCGGG
 841 -----+-----+-----+-----+-----+ 900
 K A G V D V S I N K N A V L S L G Y G G -
 CAGCTGTCGTCCAACCACGAGACAACAGCGTCAACGCCGGTCTGACCTGGCGCTTC
 901 -----+-----+-----+-----+-----+ 957
 Q L S S N H Q D N S V N A G L T W R F -

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Figure 21

1 TTCCGTCAGCTGTCGGGGCAAATCCATGCGGACATCGCGTCGGCGCTGGTGAACGACAGC 60
 F R Q L S G Q I H A D I A S A L V N D S -
 61 CGCTACCTGCGTGAGGCGCTGAACGGGCGTCTGCGTCAGGCGGAAGGGCTGGCGAGCTCG 120
 R Y L R E A L N G R L R Q A E G L A S S -
 121 TCGGCCATCAAGGCGGACGAGGACGGCGCCTGGGCGCAGCTGCTGGGAGCGTGGGACCAT 180
 S A I K A D E D G A W A Q L L G A W D H -
 181 GCGTCGGGCGACGCCAACGCCACCGGCTATCAGGCCTCGACCTACGGGTGCTGGTGGGG 240
 A S G D A N A T G Y Q A S T Y G V L V G -
 241 CTGGACTCGGCGGCGGCGCCGACTGGCGGCTGGGGGTGGCGACCGGCTACACCCGCACC 300
 L D S A A A A D W R L G V A T G Y T R T -
 301 TCGCTGCACGGCGGGTATGGGTGCAAGGCGGACAGCGACAACCTACCACCTGGCGGCGTAC 360
 S L H G G Y G S K A D S D N Y H L A A Y -
 361 GCGACAAGCAGTTGCGGGCGCTGGCGCTGCGGGCGGGCGGGCTACACCTGGCACCGC 420
 G D K Q F G A L A L R G G A G Y T W H R -
 421 ATCGACACCAAGCGGTGCGTGAACCTACGGGATGCAGTCGGACCGCGACACGGCGAAGTAC 480
 I D T K R S V N Y G M Q S D R D T A K Y -
 481 AGCGCGCGCACCGAGCAGCTGTTGCGGGAAGCGGGCTACAGCGTGAAGGGCGAGTGGCTG 540
 S A R T E Q L F A E A G Y S V K G E W L -
 541 AACCTGGAGCCGTTGCTCAACCTGGCGTACGTGAACTTTGAAAACAACGGCATCGCGGAA 600
 N L E P F V N L A Y V N F E N N G I A E -
 601 AGCGGCGGCGCAGCGGCGCTGCGCGGCGACAAGCAGCACACCGACGCGACGGTGTGACG 660
 S G G A A A L R G D K Q H T D A T V S T -
 661 CTGGGACTGCGCGCGGACACTGAGTGGCAGGTGAGCCCGGGCACGACGGTGGCGCTGCGC 720
 L G L R A D T E W Q V S P G T T V A L R -
 721 AGCGAGCTGGGGTGGCAACACCAGTACGGCGGGCTGGAGCGTGGCACCGGGCTGCGGTTC 780
 S E L G W Q H Q Y G G L E R G T G L R F -
 781 AACGGCGGCAACCGCGCGTTGCTGGTGGACAGCGTGCCGGTGTGCGCGACGGGATGGTG 840
 N G G N A P F V V D S V P V S R D G M V -
 841 CTGAAGGCGGGTGGCGAAGTGGCGGTGAACGAGAACGCCCTCGCTGTGCTGGGCTACGGC 900
 L K A G A E V A V N E N A S L S L G Y G -
 901 GGGCTGCTGTGCGAGAACCATCAGGACAACAGCGTCAACGCCGGCTTACCTGGCGCTTC 960
 G L L S Q N H Q D N S V N A G F T W R F -

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[illegible]

Figure 23

ATTAATGGCGAAGCCGGTACGTGGGTGCGTCTGCTGAACGGTTCCGGCTCTGCTGATGGC
1 -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ 60
I N G E A G T W V R L L N G S G S A D G -
GGTTTCAGTGACCACTATACCCTGCTGCAGATGGGGGCTGACCGTAAGCACGAAGTGGGA
61 -----+-----+-----+-----+-----+-----+-----+-----+-----+ 120
G F T D H Y T L L Q M G A D R K H E L G -
AGTATGGACCTGTTTACCGGCGTGATGGCCACCTACACTGACACAGATGCGTCAGCAGAC
121 -----+-----+-----+-----+-----+-----+-----+-----+-----+ 180
S M D L F T G V M A T Y T D T D A S A D -
CTGTACAGCGGTAAAACAAAATCATGGGGTGGTGGTTTCTATGCCAGTGGTCTGTTCCGG
181 -----+-----+-----+-----+-----+-----+-----+-----+-----+ 240
L Y S G K T K S W G G G F Y A S G L F R -
TCCGGCGCTTACTTTGATGTGATTGCCAAATATATTCACAATGAAAACAAATATGACCTG
241 -----+-----+-----+-----+-----+-----+-----+-----+-----+ 300
S G A Y F D V I A K Y I H N E N K Y D L -
AACTTTGCCGGAGCTGGTAAACAGAACTTCCGCAGCCATTCACTGTATGCAGGTGCAGAA
301 -----+-----+-----+-----+-----+-----+-----+-----+-----+ 360
N F A G A G K Q N F R S H S L Y A G A E -
GTCGGATACCGTTATCATCTGACAGATACGACGTTTGTGAACCTCAGGCGGAAGTGGTC
361 -----+-----+-----+-----+-----+-----+-----+-----+-----+ 420
V G Y R Y H L T D T T F V E P Q A E L V -
TGGGGAAGACTGCAGGGCCAAACATTTAACTGGAACGACAGTGAATGGATGTCTCAATG
421 -----+-----+-----+-----+-----+-----+-----+-----+-----+ 480
W G R L Q G Q T F N W N D S G M D V S M -
CGTCGTAACAGCGTTAATCCTCTGGTAGGCAGAACCGGCGTTGTTTCCGGTAAAACCTTC
481 -----+-----+-----+-----+-----+-----+-----+-----+-----+ 540
R R N S V N P L V G R T G V V S G K T F -
AGTGGTAAGGACTGGAGTCTGACAGCCCGTGCCGGCCTGCATTATGAGTTCGATCTGACG
541 -----+-----+-----+-----+-----+-----+-----+-----+-----+ 600
S G K D W S L T A R A G L H Y E F D L T -
GACAGTGCTGACGTTTCATCTGAAGGATGCAGCGGGAGAACATCAGATTAATGGCAGAAAA
601 -----+-----+-----+-----+-----+-----+-----+-----+-----+ 660
D S A D V H L K D A A G E H Q I N G R K -
GACAGTCGTATGCTTTACGGTGTGGGGTTAAATGCCCGGTTTGGCGACAATACGCGTTTG
661 -----+-----+-----+-----+-----+-----+-----+-----+-----+ 720
D S R M L Y G V G L N A R F G D N T R L -
GGGCTGGAAGTTGAACGCTCTGCATTGGTAAATACAACACAGATGATGCGATAAACGCT
721 -----+-----+-----+-----+-----+-----+-----+-----+-----+ 780
G L E V E R S A F G K Y N T D D A I N A -
AATATTCGTTATTCATTC
781 -----+-----+-----+-----+-----+-----+-----+-----+-----+ 798
N I R Y S F -

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[illegible]

1 TCTTTAGAAAGCGCGGCGGAAGTGTGTATCAATTTGCCCTAAATATGAAAAACCCACC 60
S L E S A A E V L Y Q F A P K Y E K P T -
61 AATGTTTCGCTAACGCTATTGGGGGAACGAGCTTGAATAGTGGCGGTAACGCTTCATTG 120
N V W A N A I G G T S L N S G G N A S L -
121 TATGGCACAAGTGCGGGCGTAGATGCTTACCTTAACGGGGAAGTGGGAAGCCATTGTGGGC 180
Y G T S A G V D A Y L N G E V E A I V G -
181 GGTTTTGAAGCTATGGTTATAGCTCCTTTAGTAATCAAGCGAACTCTCTTAACCTCTGGG 240
G F G S Y G Y S S F S N Q A N S L N S G -
241 GCCAATAACACTAATTTTGGCGTGTATAGCCGTATTTTGGCTAACCCAGCATGAATTTGAC 300
A N N T N F G V Y S R I F A N Q H E F D -
301 TTTGAAGCTCAAGGGGCGCTAGGGAGTGATCAATCAAGCTTGAATTTCAAAGCGCTTTA 360
F E A Q G A L G S D Q S S L N F K S A L -
361 TTGCGAGATTGAATCAAAGCTATAATTACTTAGCCTATAGCGCTGCAACAAGAGCGAGC 420
L R D L N Q S Y N Y L A Y S A A T R A S -
421 TATGGTTATGACTTCGCGTTTTTTAGGAACGCTTTGGTGTAAAACCAAGCGTGGGCGTG 480
Y G Y D F A F F R N A L V L K P S V G V -
481 AGCTATAACCATTTAGGTTCAACCAACTTTAAAAGCAACAGCAATCAAAAAGTGGCTTTG 540
S Y N H L G S T N F K S N S N Q K V A L -
541 AAAAATGGTGCAAGCAGTCAGCATTTATTCAACGCTAGTGCTAATGTGGAAGCGCGCTAT 600
K N G A S S Q H L F N A S A N V E A R Y -
601 TATTATGGGGACACTTCATACTTCTACATGAACGCTGGAGTTTTACAAGAGTTTCGCTAAC 660
Y Y G D T S Y F Y M N A G V L Q E F A N -
661 TTTGGTTCTAGCAATGCGGTGTCTTTAAACACCTTTAAAGTGAATGCTACTCGTAACCCT 720
F G S S N A V S L N T F K V N A T R N P -
721 TTAAATACCCATGCGAGAGTGATGATGGGTGGGGAATTAAATTAGCTAAAGAAGTGTTT 780
L N T H A R V M M G G E L K L A K E V F -
781 TTGAATTTGGGCTTTGTTTATTGTCACAATTTGATTTCGAATATAGGCCATTTTCGCTTCC 840
L N L G F V Y L H N L I S N I G H F A S -
841 AATTTAGGAATGAGGTATAGTTTC 864
N L G M R Y S F -